# 1. Introduction

This report provides the results for the October 2000 annual leachate sampling at the Badlands Sanitary Landfill. The information included in this report is in compliance with Waste Discharge Requirement (WDR) No. 98-99. Groundwater, Gas Condensate, and National Pollutant Discharge Elimination System (NPDES) sampling programs, as well as the general site monitoring program are submitted in separate reports.

# 2. Leachate Collection System (LCS) History

In 1993, in conjunction with the liner installation, a LCS was installed in the Canyon 1 expansion area. The leachate control system has been expanded, as necessary, during subsequent liner expansion projects and currently encompasses Canyons 1, 2, 3 and 4. The system consists of a network of high-density polyethylene (HDPE) collection pipes leading to a low point in the system.

From 1993 through 1998, the LCS terminated at two sumps at the toe of Canyons 1 and 2. In 1998, during a liner expansion, the sumps were removed and the system was converted to drain by gravity into two 5,000-gallon tanks with secondary containment. In February 2000, during the Canyon 3 expansion, the RCWMD had three 10,500-gallon tanks installed within a concrete secondary containment structure, located as shown on the attached map.

Due to the rainstorms in February and March 2000, the RCWMD isolated Canyon 3 (which, at the time, did not contain refuse) from the leachate collection system. The canyon was reconnected to the leachate system in May 2000. Additional rental tanks will be acquired should additional storage capacity be necessary.

# 3. Leachate Sampling

## 3.1 Analysis Results

E.S. Babcock & Sons, Inc. performed sample analysis for this monitoring and reporting period. The sample analysis results are located in this report (Appendix A), along with a summary of detected parameters.

The analytical results for this sampling event are consistent with previous sampling results with the exception of three non-COC parameters. The non-COC parameters are listed below, along with their analysis results and associated MDLs and PQLs. The RCWMD will retest the leachate in April 2001for these parameters.

| Parameter | Analysis (ug/L) | MDL (ug/L) | PQL (ug/L) |
|---|---|---|---|
| Acetophenone | 3.4 J | 1.7 | 10 |
| Dichlorodifluoromethane | 0.7 | 0.22 | 0.5 |
| m+p-cresol | 5.9 J | 1.4 | 10 |

A J denotes a value above the Method Detection Limit (MDL) but below the Practical Quantitative Limit (PQL).

## 3.2 Quality Assurance/Quality Control Data

Quality assurance/quality control data is contained in this report (Appendix B) and was performed by the previously mentioned laboratory. The information in this section contains the reference/laboratory identification number to which batch the QA/QC pertains to, the method number, analytical detection limits, recovery rates, results of method blanks, results of spiked matrixes and surrogates, and trip/travel blank results. A minimum of one travel blank is included in each ice chest that contains samples shipped to the laboratory.

### 3.3 Common laboratory contaminants

Common laboratory contaminants are shown during the aforementioned QA/QC process (travel blank results) and flagged as such.

### 3.4 Unknowns

Any unknown chromatographic peaks are reported in Appendix A.

### 3.5 Sampling Information

Field procedures for leachate sample collection include utilizing a bailer to obtain the samples. Sample containers are filled carefully to avoid headspace and agitation. A leachate sampling log (Appendix C) is filled out at the time of sampling and includes the following items: number and description of the samples, the type of containers and preservatives used, the date and time of sampling, name of technician performing the sampling and other observations. No problems were encountered during the sampling event.

## 4. Leachate Production

In the past, the RCWMD has reported the leachate quantity in the groundwater monitoring reports. This information will now be included in the annual leachate monitoring report.

In August 2000, the RCWMD reviewed its historical records and its method for keeping track of the quantity produced as well as the quantity used for dust control. At that time, on-site personnel as well as RCWMD engineering technicians recorded the data on separate logs. After compiling the data, it was discovered that there were inadequate records of production and inspections. It was also noted that there were some discrepancies between what was reported and what was actually produced. The RCWMD has reviewed the logs and has revised the reported amount of leachate produced, as necessary. The values from Fourth Quarter 1999 through September 2000 have been revised from previously reported quantities. The chart below shows corrected value for quantity of leachate produced from October 1999 through October 2000.

The RCWMD has since developed a uniform log for the site operators as well as RCWMD technicians to fill out every time the leachate tanks are monitored, leachate is removed, or an inspection is performed to keep track of the quantity produced and used for dust control. This new log has resulted in an accurate record of the quantity of leachate produced. Copies of the leachate production logs are located in Appendix D.

| Time Period | Quantity (gallons) |
|---|---|
| Fourth Quarter 1999 | 5,775 |
| First Quarter 2000 | 156,450* |
| April 2000 | 32,200 |
| May 2000 | 24,700 |
| June 2000 | 4,250 |
| July 2000 | 4,550 |
| August 2000 | 3,500 |
| September 2000 | 4,900 |
| October 2000 | 3,450 |

*A portion of this quantity was clean rainwater from the Canyon Three LCS, before refuse was placed in the canyon. The rainwater mixed with the leachate from Canyons 1, 2 and 4, therefore, it is included in the total.